

111TH CONGRESS
2D SESSION

H. R. 4842

To authorize appropriations for the Directorate of Science and Technology of the Department of Homeland Security for fiscal years 2011 and 2012, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 15, 2010

Ms. CLARKE (for herself, Mr. THOMPSON of Mississippi, and Mr. DANIEL E. LUNGREN of California) introduced the following bill; which was referred to the Committee on Homeland Security

A BILL

To authorize appropriations for the Directorate of Science and Technology of the Department of Homeland Security for fiscal years 2011 and 2012, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Homeland Security
5 Science and Technology Authorization Act of 2010”.

6 **SEC. 2. TABLE OF CONTENTS.**

7 The table of contents for this Act is as follows:

Sec. 1. Short title.

Sec. 2. Table of contents.

Sec. 3. Definitions.

Sec. 4. References.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

Sec. 101. Authorization of appropriations.

TITLE II—MANAGEMENT AND ADMINISTRATION

Sec. 201. Management directive; professional development; milestones and feedback.

Sec. 202. Office of Testing, Evaluation, and Standards.

Sec. 203. Peer review.

Sec. 204. Office of Public-Private Partnerships.

TITLE III—REPORTS

Sec. 301. Directorate of Science and Technology strategic plan.

Sec. 302. Report on technology requirements.

Sec. 303. Report on venture capital organization.

TITLE IV—DIRECTORATE OF SCIENCE AND TECHNOLOGY PROGRAMS

Sec. 401. Limitations on research.

Sec. 402. University-based centers.

Sec. 403. Review of university-based centers.

Sec. 404. Cybersecurity research and development.

Sec. 405. National Research Council study of cybersecurity incentives.

Sec. 406. Research on cyber compromise of infrastructure.

Sec. 407. Dual-use terrorist risks from synthetic genomics.

Sec. 408. Underwater tunnel security demonstration project.

Sec. 409. Chemical and biological threats research and development.

Sec. 410. Maritime domain awareness and maritime security technology test, evaluation, and transition capabilities.

Sec. 411. Rapid biological threat detection and identification.

Sec. 412. Educating the public about radiological threats.

Sec. 413. Rural resilience initiative.

Sec. 414. Sense of Congress regarding the need for interoperability standards for Internet protocol video surveillance technology.

TITLE V—DOMESTIC NUCLEAR DETECTION OFFICE

Sec. 501. Authorization of appropriations.

Sec. 502. Domestic Nuclear Detection Office oversight.

Sec. 503. Strategic plan and funding allocations for global architecture.

Sec. 504. Radiation portal monitor alternatives.

Sec. 505. Authorization of Securing the Cities Initiative.

TITLE VI—CLARIFYING AMENDMENTS

Sec. 601. Federally funded research and development centers.

Sec. 602. Elimination of Homeland Security Institute.

1 SEC. 3. DEFINITIONS.

2 In this Act:

1 (1) APPROPRIATE CONGRESSIONAL COM-
2 MITTEE.—The term “appropriate congressional com-
3 mittee” means the Committee on Homeland Security
4 of the House of Representatives and any committee
5 of the House of Representatives or the Senate hav-
6 ing legislative jurisdiction under the rules of the
7 House of Representatives or Senate, respectively,
8 over the matter concerned.

9 (2) DEPARTMENT.—The term “Department”
10 means the Department of Homeland Security.

11 (3) DIRECTORATE.—The term “Directorate”
12 means the Directorate of Science and Technology of
13 the Department.

14 (4) SECRETARY.—The term “Secretary” means
15 the Secretary of Homeland Security.

16 (5) UNDER SECRETARY.—The term “Under
17 Secretary” means the Under Secretary for Science
18 and Technology of the Department.

19 **SEC. 4. REFERENCES.**

20 Except as otherwise specifically provided, whenever in
21 this Act an amendment or repeal is expressed in terms
22 of an amendment to, or repeal of, a provision, the ref-
23 erence shall be considered to be made to a provision of
24 the Homeland Security Act of 2002 (6 U.S.C. 101 et
25 seq.).

1 **TITLE I—AUTHORIZATION OF** 2 **APPROPRIATIONS**

3 **SEC. 101. AUTHORIZATION OF APPROPRIATIONS.**

4 There are authorized to be appropriated to the Under
 5 Secretary \$1,121,664,000 for fiscal year 2011 and
 6 \$1,155,313,920 for fiscal year 2012 for the necessary ex-
 7 penses of the Directorate.

8 **TITLE II—MANAGEMENT AND** 9 **ADMINISTRATION**

10 **SEC. 201. MANAGEMENT DIRECTIVE; PROFESSIONAL DE-** 11 **VELOPMENT; MILESTONES AND FEEDBACK.**

12 (a) IN GENERAL.—Subtitle D of title II (6 U.S.C.
 13 161 et seq.) is amended—

14 (1) in the subtitle heading, by striking “Office
 15 of”;

16 (2) in the heading for section 231, by inserting
 17 “of Science and Technology” after “Office”; and

18 (3) by adding at the end the following new sec-
 19 tions:

20 **“SEC. 236. MANAGEMENT DIRECTIVE.**

21 “(a) REQUIREMENT.—The Secretary shall—

22 “(1) by not later than 180 days after the date
 23 of enactment of this section, issue a management di-
 24 rective detailing how basic and applied homeland se-
 25 curity research shall be identified, prioritized, fund-

1 ed, tasked, and evaluated by the Directorate of
2 Science and Technology, including the roles and re-
3 sponsibilities of the Under Secretary for Science and
4 Technology, the Under Secretary for Policy, the
5 Under Secretary for Management, the Director of
6 the Office of Risk Management and Analysis, and
7 the heads of operational components of the Depart-
8 ment; and

9 “(2) to the greatest extent possible, the Sec-
10 retary shall seek to publicize the directive for the
11 purpose of informing the Federal, State, and local
12 governments, first responders, and the private sec-
13 tor.

14 “(b) CONTENTS OF MANAGEMENT DIRECTIVE.—The
15 management directive shall—

16 “(1) identify the Directorate’s customers within
17 and outside of the Department;

18 “(2) describe the risk formula and risk assess-
19 ment tools that the Department considers to iden-
20 tify, prioritize, and fund homeland security research
21 projects;

22 “(3) describe the methodology to be used by the
23 Directorate to task projects to research entities, in-
24 cluding the national laboratories, federally funded

1 research and development centers, and university-
2 based centers;

3 “(4) require the Directorate to develop proto-
4 cols to assess off-the-shelf technology to determine if
5 an identified homeland security capability gap can
6 be addressed through the acquisition process instead
7 of commencing research and development of tech-
8 nology to address that capability gap;

9 “(5) require the Directorate to strengthen first
10 responder participation in identifying and
11 prioritizing homeland security technological gaps
12 by—

13 “(A) soliciting feedback from national as-
14 sociations and advisory groups representing the
15 first responder community and first responders
16 within the components of the Department;

17 “(B) establishing and promoting a publicly
18 accessible portal to allow the first responder
19 community to help the Directorate develop
20 homeland security research and development
21 goals; and

22 “(C) establishing a mechanism to publicize
23 the Department’s funded and unfunded home-
24 land security technology priorities; and

1 “(6) include such other requirements, policies,
2 and practices as the Secretary considers necessary.

3 “(c) ACTIVITIES IN SUPPORT OF THE MANAGEMENT
4 DIRECTIVE.—Not later than 180 days after the date of
5 the issuance of the management directive, the Secretary
6 shall—

7 “(1) establish a mandatory workforce program
8 for the Directorate’s customers in the Department
9 to better identify and prioritize homeland security
10 capability gaps that may be addressed by a techno-
11 logical solution based on the assessment required
12 under section 237(a)(2);

13 “(2) establish a system to collect feedback from
14 customers of the Directorate on the performance of
15 the Directorate, that includes metrics for measuring
16 customer satisfaction and the usefulness of any tech-
17 nology or service provided by the Directorate; and

18 “(3) any other activities that the Secretary con-
19 siders to be necessary to implement the management
20 directive.

21 “(d) QUARTERLY UPDATES ON IMPLEMENTATION.—
22 One hundred and twenty days after the date of enactment
23 of this section, and on a quarterly basis thereafter, the
24 Inspector General of the Department shall submit a quar-
25 terly update to the appropriate congressional committees

1 on the status of implementation of the management direc-
2 tive and activities in support of the directive.

3 “(e) RISK ANALYSIS.—In carrying out subsection
4 (b)(2), the Secretary shall—

5 “(1) submit to the appropriate congressional
6 committees by not later than 90 days after the date
7 of enactment of this subsection and annually—

8 “(A) a prioritized risk analysis describing
9 the greatest risks to the homeland, that in-
10 cludes vulnerability studies, asset values (in-
11 cluding asset values for intangible assets), esti-
12 mated rates of occurrence, countermeasures em-
13 ployed, loss expectancy, cost/benefit analyses,
14 and other practices generally associated with
15 producing a comprehensive risk analysis;

16 “(B) an analysis of the Directorate’s ap-
17 proach to mitigating the homeland security
18 risks identified under subparagraph (A)
19 through basic and applied research, develop-
20 ment, demonstration, testing, and evaluation
21 activities;

22 “(C) an analysis, based on statistics and
23 metrics, of the effectiveness of the Directorate
24 in reducing the homeland security risks identi-
25 fied under subparagraph (A) through the de-

1 ployment of homeland security technologies re-
2 searched or developed by the Directorate;

3 “(D) recommendations for how the Direc-
4 torate should modify or amend its research and
5 development activities in order to reduce the
6 risks to the homeland identified under subpara-
7 graph (A);

8 “(E) a description of how the assessments
9 required under subparagraph (A) shall be used
10 to inform, guide, and prioritize the Depart-
11 ment’s homeland security research and develop-
12 ment activities; and

13 “(F) a description of input from other rel-
14 evant Federal, State, or local agencies and rel-
15 evant private sector entities in conducting the
16 risk assessment required by subparagraph (A);
17 and

18 “(2) conduct research and development on ways
19 to most effectively communicate information regard-
20 ing the risks associated with the various threats
21 identified in paragraph (1) to the media as well as
22 directly to the public, both on an ongoing basis and
23 during a terrorist attack or other incident.

24 “(f) REPORT ON HSARPA ACTIVITIES.—

1 “(1) IN GENERAL.—Not later than 60 days
2 after the date of enactment of this subsection and
3 annually thereafter, the Secretary shall submit a re-
4 port to the appropriate congressional committees
5 containing the research, development, testing, eval-
6 uation, prototyping, and deployment activities under-
7 taken by the Homeland Security Advanced Research
8 Projects Agency during the previous fiscal year, in-
9 cluding funds expended for such activities in the pre-
10 vious fiscal year.

11 “(2) CONTENTS.—For each activity under-
12 taken, the report shall—

13 “(A) describe the corresponding risk anal-
14 ysis performed by the Department that sup-
15 ports the decision to undertake in that activity;
16 and

17 “(B) describe the efforts made to transi-
18 tion that activity into a Federal, State, or local
19 acquisition program.

20 “(3) ADDITIONAL ACTIVITIES.—The Secretary
21 shall include in each report a description of each
22 proposal that was reviewed in the period covered by
23 the report by the Director of the Homeland Security
24 Advanced Research Projects Agency under section
25 313(d)(3), including a statement of whether the pro-

1 posal received a grant, cooperative agreement, or
2 contract from the Director.

3 **“SEC. 237. PROFESSIONAL DEVELOPMENT.**

4 “(a) REPORTING REQUIREMENT.—Sixty days before
5 establishing the mandatory workforce program as required
6 by section 236(c)(1), the Secretary shall submit a report
7 to the appropriate congressional committees that includes
8 the following:

9 “(1) A description of how homeland security
10 technological requirements are developed by the Di-
11 rectorate of Science and Technology’s customers
12 within the Department.

13 “(2) An assessment of whether Department em-
14 ployees receive adequate and appropriate job train-
15 ing to allow them to identify, express, and prioritize
16 homeland security capability gaps.

17 “(3) A plan for how the Directorate, in coordi-
18 nation with the Domestic Nuclear Detection Office
19 and other Department components, can enhance and
20 improve the technology requirements development
21 and the technology acquisition process, to accelerate
22 the delivery of effective, suitable technologies that
23 meet performance requirements and appropriately
24 address an identified homeland security capability
25 gap.

1 “(4) An assessment of whether Congress should
2 authorize, in addition to the program required under
3 section 236(c)(1), a training program for Depart-
4 ment employees to be trained in requirements writ-
5 ing and acquisition, that—

6 “(A) is prepared in consultation with the
7 Department of Veteran’s Affairs Acquisition
8 Academy, the Defense Acquisition University,
9 the Inspector General of the Department, and
10 the Government Accountability Office; and

11 “(B) if the Secretary determines that such
12 additional training should be authorized by
13 Congress, includes specification about—

14 “(i) the type, skill set, and job series
15 of Department employees who would ben-
16 efit from such training, including an esti-
17 mate of the number of such employees;

18 “(ii) a suggested curriculum for the
19 training;

20 “(iii) the type and skill set of edu-
21 cators who could most effectively teach
22 these skills;

23 “(iv) the length and duration of the
24 training;

1 “(v) the advantages and disadvan-
 2 tages of training employees in a live class-
 3 room, or virtual classroom, or both;

4 “(vi) cost estimates for the training;
 5 and

6 “(vii) the role of the Directorate in
 7 supporting the training.

8 “(b) USE OF RESEARCH AND DEVELOPMENT CEN-
 9 TER.—The Secretary is encouraged to use a federally
 10 funded research and development center to assist the Sec-
 11 retary in carrying out the requirements of this section.

12 **“SEC. 238. TRACKING SYSTEMS, RESEARCH MILESTONES,**
 13 **AND CUSTOMER FEEDBACK.**

14 “(a) IN GENERAL.—In establishing a system to col-
 15 lect feedback under section 236(c)(2), the Secretary
 16 shall—

17 “(1) establish a system to monitor and account
 18 for homeland security research milestones; and

19 “(2) create a formal process for collecting feed-
 20 back from customers on the effectiveness of the
 21 technology or services delivered by Directorate.

22 “(b) SYSTEM.—The system established under sub-
 23 section (a)(1) shall identify and account for research mile-
 24 stones to monitor the progress of Directorate of Science
 25 and Technology research, development, testing, and eval-

1 uation activities, and collect information from the Direc-
2 torate’s customers about their level of satisfaction with the
3 performance of the Directorate, including by—

4 “(1) allowing the Directorate to provide regular
5 reports to its customers regarding the status and
6 progress of research efforts of the Directorate;

7 “(2) collecting and evaluating customer feed-
8 back;

9 “(3) allowing the Secretary to evaluate how a
10 technology or service produced as a result of the Di-
11 rectorate’s programs have affected homeland secu-
12 rity capability gaps; and

13 “(4) allowing the Secretary to report the num-
14 ber of products and services developed by the Direc-
15 torate that have been transitioned into acquisition
16 programs.

17 “(c) MANAGEMENT DIRECTIVE.—The Under Sec-
18 retary of Science and Technology shall issue a manage-
19 ment directive creating, publicizing, and implementing
20 guidance for homeland security researchers funded by the
21 Directorate on setting valid initial and subsequent re-
22 search milestones. The directive may include penalties for
23 research milestones missed, disincentives for continuing
24 projects that are unlikely to meet objectives, and financial

1 and professional incentives and awards for the timely com-
2 pletion of successful projects within budget.

3 “(d) REPORT.—The Under Secretary shall submit a
4 report to the appropriate congressional committees—

5 “(1) by not later than one year after the date
6 of enactment of this Act identifying what actions
7 have been taken to carry out the requirements of
8 this section; and

9 “(2) annually thereafter describing—

10 “(A) research milestones in the conduct of
11 research and development by the Directorate
12 that have been met and missed, including a de-
13 scription of any incentives, awards, disincen-
14 tives, or penalties implemented as a result of
15 those met and missed milestones; and

16 “(B) customer feedback collected, includ-
17 ing an evaluation of the effectiveness of the
18 technology or services delivered by the Direc-
19 torate.”.

20 (b) CLERICAL AMENDMENTS.—The table of contents
21 in section 1(b) is amended in the items relating to subtitle
22 D of title II—

23 (1) in the item relating to the heading for the
24 subtitle, by striking “Office of”;

1 (2) in the item relating to section 231, by in-
 2 serting “of Science and Technology” after “Office”;
 3 and

4 (3) by adding at the end the following new
 5 items:

“Sec. 236. Management directive.

“Sec. 237. Professional development.

“Sec. 238. Tracking systems, research milestones, and customer feedback.”.

6 **SEC. 202. OFFICE OF TESTING, EVALUATION, AND STAND-**
 7 **ARDS.**

8 Section 308 (6 U.S.C. 188) is amended by adding
 9 at the end the following new subsection:

10 “(d) OFFICE OF TESTING, EVALUATION, AND
 11 STANDARDS.—

12 “(1) ESTABLISHMENT.—There is established
 13 within the Directorate of Science and Technology an
 14 Office of Testing, Evaluation, and Standards, which
 15 shall be headed by a Director.

16 “(2) PURPOSE.—The purpose of the Office is to
 17 assist the components of the Department and other
 18 customers in developing plans, processes, and proce-
 19 dures for conducting operational testing and per-
 20 formance testing to verify attainment of technical
 21 performance specifications and operational effective-
 22 ness and suitability.

23 “(3) LIMITATIONS.—The Office is not required
 24 to carry out its own operational testing.

1 “(4) RESPONSIBILITIES.—The Director of the
2 Office shall be responsible for the following activities
3 at the Department:

4 “(A) TESTING AND EVALUATION POLI-
5 CIES.—

6 “(i) Establishing policies and pro-
7 grams to support the development, coordi-
8 nation, and operational management of
9 testing and evaluation standards for the
10 Department.

11 “(ii) Establishing policy, on behalf of
12 the Secretary, under which operation and
13 evaluation testing are reviewed and ap-
14 proved by the Secretary.

15 “(iii) Integrating, coordinating, and
16 leveraging public and private sector testing
17 and evaluation infrastructure to meet the
18 Department’s current and future tech-
19 nology development needs.

20 “(iv) Advise the Secretary as to
21 whether the plans, processes, and proce-
22 dures proposed for testing and evaluation
23 that components of the Department intend
24 to utilize should be approved.

25 “(B) STANDARDS DEVELOPMENT.—

1 “(i) Developing and coordinating the
2 adoption of national standards and appro-
3 priate evaluation methods for technology to
4 address homeland security capability gaps.

5 “(ii) Developing and implementing an
6 overarching strategy for the qualification
7 and certification of homeland security tech-
8 nologies and accreditation of facilities and
9 programs of the Department.

10 “(iii) Encouraging investments and
11 competition in homeland security tech-
12 nologies by fostering standardization of
13 performance metrics and quality measures
14 for first responder technologies.

15 “(iv) Providing guidance, rec-
16 ommendations, and technical assistance, as
17 appropriate, to assist Federal, State, and
18 local government and private sector efforts
19 to evaluate and implement the use of
20 homeland security technologies.”.

21 **SEC. 203. PEER REVIEW.**

22 (a) RESPONSIBILITIES AND AUTHORITIES OF THE
23 UNDER SECRETARY.—Section 302 (6 U.S.C. 183) is
24 amended by striking “and” after the semicolon at the end
25 of paragraph (1), by striking the period at the end of para-

1 graph (14) and inserting “; and”, and by adding at the
2 end the following new paragraph:

3 “(15) developing and overseeing the administra-
4 tion of guidelines for peer review of research and de-
5 velopment projects, including by—

6 “(A) consulting with experts, including sci-
7 entists and practitioners, about the research
8 and development conducted by the Directorate
9 of Science and Technology; and

10 “(B) performing ongoing independent, ex-
11 ternal, scientific peer review—

12 “(i) initially at the division level; or

13 “(ii) when divisions conduct multiple
14 programs focused on significantly different
15 subjects, at the program level.”.

16 (b) REPORT.—The Secretary shall submit a report to
17 Congress not later than 60 days after the completion of
18 the first review under section 302(15)(B) of the Homeland
19 Security Act of 2002, as amended by subsection (a) of
20 this section, that—

21 (1) summarizes the findings of the review; and

22 (2) describes future efforts to ensure that the
23 Department’s research projects are peer reviewed,
24 where appropriate.

1 **SEC. 204. OFFICE OF PUBLIC-PRIVATE PARTNERSHIPS.**

2 (a) ESTABLISHMENT.—Section 313 (6 U.S.C. 193)
3 is amended to read as follows:

4 **“SEC. 313. OFFICE OF PUBLIC-PRIVATE PARTNERSHIPS.**

5 “(a) ESTABLISHMENT OF OFFICE.—There is estab-
6 lished an Office of Public-Private Partnerships in the Di-
7 rectorate of Science and Technology.

8 “(b) DIRECTOR.—The Office shall be headed by a Di-
9 rector, who shall be appointed by the Secretary. The Di-
10 rector shall report to the Under Secretary.

11 “(c) RESPONSIBILITIES.—The Director shall have
12 the authority to—

13 “(1) provide guidance on how to pursue pro-
14 posals to develop or deploy homeland security tech-
15 nologies (including regarding Federal funding, regu-
16 lation, or acquisition), including to persons associ-
17 ated with small businesses (as that term is defined
18 in the Small Business Act (15 U.S.C. 631 et seq.));

19 “(2) coordinate with components of the Depart-
20 ment to issue announcements seeking unique and in-
21 novative homeland security technologies to address
22 homeland security capability gaps;

23 “(3) promote interaction between homeland se-
24 curity researchers and private sector companies in
25 order to accelerate transition research or a prototype

1 into a commercial product and streamline the han-
2 dling of intellectual property; and

3 “(4) conduct technology research assessment
4 and marketplace analysis for the purpose of identi-
5 fying, leveraging, and integrating best-of-breed tech-
6 nologies and capabilities from industry, academia,
7 and other Federal Government agencies, and dis-
8 seminate research and findings to Federal, State,
9 and local governments.

10 “(d) RAPID REVIEW DIVISION.—

11 “(1) ESTABLISHMENT.—There is established
12 the Rapid Review Division within the Office of Pub-
13 lic-Private Partnerships.

14 “(2) PURPOSE AND DUTIES.—

15 “(A) IN GENERAL.—The Division—

16 “(i) is responsible for maintaining a
17 capability to perform business and tech-
18 nical reviews to assist in screening unsolic-
19 ited homeland security technology pro-
20 posals submitted to the Secretary; and

21 “(ii) shall assess the feasibility, sci-
22 entific and technical merits, and estimated
23 cost of such proposals.

24 “(B) SPECIFIC DUTIES.—In carrying out
25 these duties, the Division shall—

1 “(i) maintain awareness of the techno-
2 logical requirements of the Directorate’s
3 customers;

4 “(ii) establish and publicize accessible,
5 streamlined procedures allowing a partici-
6 pant to have their technology assessed by
7 the Division;

8 “(iii) make knowledgeable assessments
9 of a participant’s technology after receiving
10 a business plan, a technology proposal, and
11 a list of corporate officers, directors, and
12 employees with technical knowledge of the
13 proposal, within 60 days after such a sub-
14 mission; and

15 “(iv) review proposals submitted by
16 components of the Department to the Divi-
17 sion, subject to subsection (e).

18 “(3) COORDINATION.—The Director shall refer
19 promising homeland security technology research,
20 development, testing, and evaluation proposals, along
21 with any business and technical reviews, to the Di-
22 rector of the Homeland Security Advanced Research
23 Projects Agency and appropriate Department com-
24 ponents for consideration for support.

1 “(e) LIMITATION ON CONSIDERATION OR EVALUA-
2 TION OF PROPOSALS.—The Office may not consider or
3 evaluate homeland security technology proposals sub-
4 mitted in response to a solicitation for offers for a pending
5 procurement or for a specific agency requirement.

6 “(f) SATELLITE OFFICES.—The Under Secretary,
7 acting through the Director, may establish up to 3 satellite
8 offices across the country to enhance the Department’s
9 outreach efforts. The Secretary shall notify the appro-
10 priate congressional committees in writing within 30 days
11 after establishing any satellite office.

12 “(g) PERSONNEL.—

13 “(1) USE OF EXISTING AUTHORITY.—The Sec-
14 retary may use the hiring and management authori-
15 ties described in section 307(b)(6) to hire personnel
16 for the Office.

17 “(2) CONFLICTS OF INTEREST.—The Secretary
18 shall establish rules to prevent the Director or any
19 other employee of the Office from acting on matters
20 where a conflict of interest may exist.”.

21 “(b) CLERICAL AMENDMENT.—The table of contents
22 in section 1(b) is amended by striking the item relating
23 to such section and inserting the following:

“Sec. 313. Office of Public-Private Partnerships.”.

24 “(c) AUTHORIZATION OF APPROPRIATIONS.—Of the
25 amount authorized by section 101, there is authorized to

1 be appropriated \$30,000,000 for the Office of Public-Pri-
 2 vate Partnerships for each of fiscal years 2011 and 2012.

3 **TITLE III—REPORTS**

4 **SEC. 301. DIRECTORATE OF SCIENCE AND TECHNOLOGY** 5 **STRATEGIC PLAN.**

6 (a) IN GENERAL.—Title III (6 U.S.C. 181 et seq.)
 7 is amended by adding at the end the following new section:

8 **“SEC. 318. STRATEGIC PLAN.**

9 “(a) REQUIREMENT FOR STRATEGIC PLAN.—Not
 10 later than 1 year after the date of enactment of this sec-
 11 tion and every other year thereafter, the Under Secretary
 12 shall prepare a strategic plan for the activities of the Di-
 13 rectorate.

14 “(b) CONTENTS.—The strategic plan required by
 15 subsection (a) shall be prepared in accordance with Office
 16 of Management and Budget Circular A–11, and shall in-
 17 clude the following matters:

18 “(1) The long-term strategic goals of the Direc-
 19 torate.

20 “(2) Identification of the research programs of
 21 the Directorate that support achievement of those
 22 strategic goals.

23 “(3) The connection of the activities and pro-
 24 grams of the Directorate to requirements or home-
 25 land security capability gaps identified by customers

1 within the Department and outside of the Depart-
 2 ment, including the first responder community.

3 “(4) The role of the Department’s risk analysis
 4 in the activities and programs of the Directorate.

5 “(5) A technology transition strategy for the
 6 programs of the Directorate.

7 “(6) A description of the policies of the Direc-
 8 torate on the management, organization, and per-
 9 sonnel of the Directorate.

10 “(c) SUBMISSION OF PLAN TO CONGRESS.—The Sec-
 11 retary shall submit to Congress the strategic plan most
 12 recently prepared under subsection (a) at the same time
 13 that the President submits to Congress the budget for
 14 each even-numbered fiscal year.”.

15 (b) CLERICAL AMENDMENT.—The table of contents
 16 in section 1(b) is amended by adding at the end of the
 17 items relating to title III the following new item:

“Sec. 318. Strategic plan.”.

18 **SEC. 302. REPORT ON TECHNOLOGY REQUIREMENTS.**

19 Section 302 (6 U.S.C. 182) is amended by inserting
 20 “(a) IN GENERAL.—” before the first sentence, and by
 21 adding at the end the following new subsection:

22 “(b) REPORT ON TECHNOLOGY REQUIREMENTS.—

23 “(1) IN GENERAL.—Within 90 days after the
 24 date of enactment of this subsection, and biannually
 25 thereafter, the Under Secretary shall, for each

1 project conducted or funded by the Directorate, pro-
2 vide to the appropriate congressional committees a
3 list of detailed operational and technical require-
4 ments that are associated with the project.

5 “(2) LARGE PROJECTS.—Within 90 days after
6 the date of enactment of this subsection, and bian-
7 nually thereafter, the Secretary shall, for each
8 project conducted or funded by a component of the
9 Department, other than the Directorate of Science
10 and Technology, having a Federal cost share greater
11 than \$1,000,000, provide to the appropriate congres-
12 sional committees detailed operational and technical
13 requirements that are associated with the project.”.

14 **SEC. 303. REPORT ON VENTURE CAPITAL ORGANIZATION.**

15 (a) IN GENERAL.—Not later than 1 year after the
16 date of enactment of this Act, the Secretary shall submit
17 a report to the appropriate congressional committees as-
18 sessing the current role of the venture capital community
19 in funding advanced homeland security technologies, and
20 providing recommendations to the appropriate congres-
21 sional activities about creating a nonprofit organization
22 for the purposes of delivering advanced homeland security
23 technologies to the homeland security community to fur-
24 ther their missions.

1 (b) CONTENTS.—The report shall include the fol-
2 lowing:

3 (1) An assessment of the current awareness
4 and insight that the Department has into advanced
5 private sector homeland security innovation, and the
6 Department's ability to quickly transition innovative
7 products into acquisitions.

8 (2) A description of how the Department cur-
9 rently finds and works with emerging companies,
10 particular those who have never done business with
11 the Federal Government.

12 (3) An assessment and analysis of the current
13 role that venture capitalists play in the development
14 of homeland security technologies, including an as-
15 sessment of how the venture capital community
16 could be leveraged to accelerate technology, foster
17 development, and introduce new technologies needed
18 by the homeland security community.

19 (4) An assessment of whether the Department
20 could help nascent commercial technologies mature
21 into commercial-off-the-shelf products the homeland
22 security community could acquire.

23 (5) An analysis of whether the Central Intel-
24 ligence Agency's In-Q-Tel organization could serve

1 as a model for the development of homeland security
2 technology at the Department.

3 (6) Recommendations of the Secretary regard-
4 ing whether Congress should create a private, inde-
5 pendent, not-for-profit organization to bridge the
6 gap between the technology needs of the homeland
7 security community and new advances in commercial
8 technology.

9 (c) AUTHORIZATION OF APPROPRIATIONS.—The Sec-
10 retary is encouraged to use a federally funded research
11 and development center to produce the report under this
12 section. Of the amount authorized by section 101, there
13 is authorized \$500,000 for the report.

14 **TITLE IV—DIRECTORATE OF**
15 **SCIENCE AND TECHNOLOGY**
16 **PROGRAMS**

17 **SEC. 401. LIMITATIONS ON RESEARCH.**

18 Section 302(4) (6 U.S.C. 182(4)) is amended by in-
19 serting after “extramural programs,” the following: “that
20 directly addresses a prioritized risk to the homeland as
21 identified by a risk analysis under section 226(e) of this
22 Act”.

23 **SEC. 402. UNIVERSITY-BASED CENTERS.**

24 Of the amount authorized by section 101, there is
25 authorized to be appropriated \$40,000,000 for fiscal year

1 2011 and \$41,200,000 for fiscal year 2012 to the Sec-
2 retary for each of fiscal years 2011 and 2012 to carry
3 out the university-based centers program of the Depart-
4 ment.

5 **SEC. 403. REVIEW OF UNIVERSITY-BASED CENTERS.**

6 (a) GAO STUDY OF UNIVERSITY CENTERS.—Not
7 later than 120 days after the date of the enactment of
8 this Act, the Comptroller General of the United States
9 shall initiate a study to assess the university-based Cen-
10 ters for Homeland Security program authorized by section
11 308(b)(2) of the Homeland Security Act of 2002 (6
12 U.S.C. 188(b)(2)), and provide recommendations to the
13 appropriate congressional committees for appropriate im-
14 provements.

15 (b) SUBJECT MATTERS.—The study under sub-
16 section (a) shall include the following:

17 (1) A review of key areas of study needed to
18 support the homeland security mission, and criteria
19 that should be utilized to determine those key areas
20 for which the Department should maintain, estab-
21 lish, or eliminate university-based centers.

22 (2) A review of the method by which university-
23 based centers, federally funded research and develop-
24 ment centers, and Department of Energy national
25 laboratories receive tasking from the Department,

1 including a review of how university-based research
2 is identified, prioritized, and funded.

3 (3) A review of selection criteria for designating
4 university-based centers and a weighting of such cri-
5 teria.

6 (4) An examination of the optimal organization
7 and role of the university-based centers in sup-
8 porting the mission of the Directorate and the De-
9 partment components.

10 (5) An identification of the most appropriate
11 review criteria and metrics to measure demonstrable
12 progress achieved by university-based centers in ful-
13 filling Department taskings, and mechanisms for de-
14 livering and disseminating the research results of
15 designated university-based centers within the De-
16 partment and to other Federal, State, and local
17 agencies.

18 (6) An examination of the means by which aca-
19 demic institutions that are not designated or associ-
20 ated with the designated university-based centers
21 can optimally contribute to the research mission of
22 the Directorate.

23 (7) An assessment of the interrelationship be-
24 tween the different university-based centers.

1 (8) A review of any other essential elements of
2 the programs determined in the conduct of the
3 study.

4 (c) MORATORIUM ON UNIVERSITY CENTERS.—The
5 Secretary may not designate any new university-based
6 centers for homeland security prior to the completion of
7 the Comptroller General’s review.

8 **SEC. 404. CYBERSECURITY RESEARCH AND DEVELOPMENT.**

9 (a) IN GENERAL.—The Under Secretary shall sup-
10 port research, development, testing, evaluation, and tran-
11 sition of cybersecurity technology, including fundamental,
12 long-term research to improve the ability of the United
13 States to prevent, protect against, detect, respond to, and
14 recover from acts of terrorism and cyber attacks, with an
15 emphasis on research and development relevant to large-
16 scale, high-impact attacks.

17 (b) ACTIVITIES.—The research and development sup-
18 ported under subsection (a) shall include work to—

19 (1) advance the development and accelerate the
20 deployment of more secure versions of fundamental
21 Internet protocols and architectures, including for
22 the domain name system and routing protocols;

23 (2) improve and create technologies for detect-
24 ing attacks or intrusions, including monitoring tech-
25 nologies;

1 (3) improve and create mitigation and recovery
2 methodologies, including techniques for containment
3 of attacks and development of resilient networks and
4 systems that degrade gracefully;

5 (4) develop and support infrastructure and tools
6 to support cybersecurity research and development
7 efforts, including modeling, testbeds, and data sets
8 for assessment of new cybersecurity technologies;

9 (5) assist the development and support of tech-
10 nologies to reduce vulnerabilities in process control
11 systems; and

12 (6) test, evaluate, and facilitate the transfer of
13 technologies associated with the engineering of less
14 vulnerable software and securing the information
15 technology software development lifecycle.

16 (c) COORDINATION.—In carrying out this section, the
17 Under Secretary shall coordinate activities with—

18 (1) the Under Secretary for National Protection
19 and Programs; and

20 (2) the heads of other relevant Federal depart-
21 ments and agencies, including the National Science
22 Foundation, the Defense Advanced Research
23 Projects Agency, the Information Assurance Direc-
24 torate of the National Security Agency, the National
25 Institute of Standards and Technology, the Depart-

1 ment of Commerce, and other appropriate working
2 groups established by the President to identify
3 unmet needs and cooperatively support activities, as
4 appropriate.

5 (d) AUTHORIZATION OF APPROPRIATIONS.—Of the
6 amount authorized by section 101, there is authorized to
7 be appropriated \$75,000,000 to the Department for each
8 of fiscal years 2011 and 2012 for the cybersecurity re-
9 search and development activities of the Directorate of
10 Science and Technology to prevent, detect, and respond
11 to acts of terrorism and other large-scale disruptions to
12 information infrastructure.

13 **SEC. 405. NATIONAL RESEARCH COUNCIL STUDY OF CY-**
14 **BERSECURITY INCENTIVES.**

15 (a) STUDY.—Not later than 90 days after the date
16 of the enactment of this Act, the Under Secretary and the
17 Under Secretary for National Protection and Programs of
18 the Department shall seek to enter into an agreement with
19 the National Research Council of the National Academy
20 of Sciences to conduct a study to assess methods that
21 might be used to promote market mechanisms that further
22 cybersecurity and make recommendations for appropriate
23 improvements thereto.

24 (b) SUBJECT MATTERS.—The study required under
25 subsection (a) shall include the following:

1 (1) Liability that subjects software and system
2 vendors and system operators to potential damages
3 for system breaches.

4 (2) Mandated reporting of security breaches
5 that could threaten critical societal functions.

6 (3) Regulation that imposes under threat of
7 civil penalty best practices on system operators of
8 critical infrastructure.

9 (4) Certification from standards bodies about
10 conformance to relevant cybersecurity standards that
11 can be used as a marketplace differentiation.

12 (5) Accounting practices that require companies
13 to report their cybersecurity practices and postures
14 and the results of independently conducted red team
15 simulated attacks or exercises.

16 (6) Cybersecurity risk insurance.

17 (c) REPORT.—Not later than two years after the date
18 of the enactment of this Act, the Secretary shall submit
19 to the appropriate congressional committees a report con-
20 taining the results of the study required under subsection
21 (a), together with any recommendations of the Secretary
22 related thereto.

23 (d) AUTHORIZATION OF APPROPRIATIONS.—Of the
24 amount authorized by section 101, there is authorized to

1 be appropriated \$500,000 to the Department for fiscal
2 year 2011 to carry out this section.

3 **SEC. 406. RESEARCH ON CYBER COMPROMISE OF INFRA-**
4 **STRUCTURE.**

5 (a) IN GENERAL.—Pursuant to section 201 of the
6 Homeland Security Act of 2002 (6 U.S.C. 121) and in
7 furtherance of domestic preparedness for and collective re-
8 sponse to a cyber attack by a terrorist or other person,
9 the Secretary, working with the heads of other national
10 security and intelligence agencies, shall conduct research
11 and determine if the security of federally owned program-
12 mable electronic devices and communication networks, in-
13 cluding hardware, software, and data, essential to the reli-
14 able operation of critical electric infrastructure have been
15 compromised.

16 (b) SCOPE OF RESEARCH.—The scope of the research
17 required under subsection (a) shall include the following:

- 18 (1) The extent of any compromise.
- 19 (2) An identification of any attackers.
- 20 (3) The method of penetration.
- 21 (4) Ramifications of any such compromise on
22 future operations of critical electric infrastructure.
- 23 (5) Secondary ramifications of any such com-
24 promise on other critical infrastructure sectors and
25 the functioning of civil society.

1 (6) Ramifications of any such compromise on
2 national security, including war fighting capability.

3 (7) Recommended mitigation activities.

4 (c) REPORT.—Not later than 30 days after the a de-
5 termination has been made under subsection (a), the Sec-
6 retary shall submit to the appropriate congressional com-
7 mittees a report on the findings of such determination.
8 The report may contain a classified annex if the Secretary
9 determines it to be appropriate.

10 **SEC. 407. DUAL-USE TERRORIST RISKS FROM SYNTHETIC**
11 **GENOMICS.**

12 (a) SENSE OF CONGRESS.—It is the sense of Con-
13 gress that the field of synthetic genomics has the potential
14 to facilitate enormous gains in fundamental discovery and
15 biotechnological applications, but it also has inherent dual-
16 use homeland security risks that must be managed.

17 (b) REQUIREMENT.—The Under Secretary shall ex-
18 amine and report to the appropriate congressional com-
19 mittees by not later than one year after the date of enact-
20 ment of this Act on the homeland security implications
21 of the dual-use nature of synthetic genomics and fund re-
22 search in that area, including—

23 (1) determining the current capability of syn-
24 thetic nucleic acid providers to effectively differen-

1 tiate a legitimate customer from a potential terrorist
2 or other malicious actor;

3 (2) determining the current capability of syn-
4 thetic nucleic acid providers to effectively screen or-
5 ders for sequences of homeland security concern;
6 and

7 (3) making recommendations regarding screen-
8 ing software, protocols, and other remaining capa-
9 bility gaps uncovered by the study.

10 **SEC. 408. UNDERWATER TUNNEL SECURITY DEMONSTRA-**
11 **TION PROJECT.**

12 (a) IN GENERAL.—Not later than 180 days after the
13 date of the enactment of this Act, the Under Secretary,
14 in consultation with the Assistant Secretary of the Trans-
15 portation Security Administration, shall conduct a dem-
16 onstration project to test and assess the feasibility and
17 effectiveness of certain technologies to enhance the secu-
18 rity of underwater public transportation tunnels against
19 terrorist attacks involving the use of improvised explosive
20 devices.

21 (b) INFLATABLE PLUGS.—At least one of the tech-
22 nologies tested in accordance with subsection (a) shall be
23 inflatable plugs that may be rapidly deployed to prevent
24 flooding of an underwater public transportation tunnel.

1 (c) REPORT.—Not later than 180 days after the com-
2 pletion of the demonstration project under subsection (a),
3 the Under Secretary shall submit to the appropriate con-
4 gressional committees a report on the results of the dem-
5 onstration project.

6 **SEC. 409. CHEMICAL AND BIOLOGICAL THREATS RE-**
7 **SEARCH AND DEVELOPMENT.**

8 (a) IN GENERAL.—The Under Secretary, in carrying
9 out responsibilities under section 302 of the Homeland Se-
10 curity Act of 2002 (6 U.S.C. 182), shall support research,
11 development, testing, evaluation, and transition of tech-
12 nology that increases the Nation’s preparedness against
13 chemical and biological threats and strengthens the Na-
14 tion’s preparedness and collective response against these
15 threats through improved threat awareness and advanced
16 surveillance, detection, and protective countermeasures.

17 (b) BIOLOGICAL SECURITY.—To carry out the re-
18 quirements of subsection (a), the Under Secretary shall
19 conduct research to develop understanding, technologies,
20 and systems needed to protect against biological attacks
21 on the Nation’s population or infrastructure, including—

22 (1) providing advanced planning tools, concepts
23 of operations (including alarm resolution protocols),
24 and training exercises for responding to and recov-
25 ering from biological attacks;

1 (2) developing biological assays and improved
2 detection technology that will operate with faster de-
3 tection times, lower costs, and the potential for in-
4 creased geographical coverage to the Nation when
5 compared to existing homeland security technologies;

6 (3) characterizing threats posed by biological
7 weapons, anticipating future threats, conducting
8 comprehensive threat and risk assessments to guide
9 prioritization of the Nation's biodefense investments,
10 and developing population threat assessments that
11 inform the issuance of material threat determina-
12 tions; and

13 (4) conducting bioforensics research in support
14 of criminal investigations to aid attribution, appre-
15 hension, and prosecution of a terrorist or other per-
16 petrator of a biological attack, and providing tools
17 and facilities that Federal law enforcement inves-
18 tigators need to analyze biological threat evidence re-
19 covered, including operation of the National Bio-
20 forensic Analysis Center.

21 (c) AGRICULTURAL SECURITY.—The Under Sec-
22 retary shall conduct research and development to enhance
23 the protection of the Nation's agriculture and food system
24 against terrorist attacks, major disasters, and other emer-
25 gencies through enhancement of current agricultural coun-

1 termeasures, development of new agricultural counter-
2 measures, and provision of safe, secure, state-of-the-art
3 biocontainment laboratories for researching foreign animal
4 and zoonotic diseases, including—

5 (1) developing technologies to defend the Na-
6 tion against the natural and intentional introduction
7 of selected foreign animal diseases, developing next-
8 generation vaccines and diagnostics in coordination
9 with the Department of Agriculture, and modeling
10 the spread of foreign animal diseases and their eco-
11 nomic impact to evaluate strategies for controlling
12 outbreaks; and

13 (2) leading the Department effort to enhance
14 interagency coordination of research and develop-
15 ment of agricultural disease countermeasures.

16 (d) CHEMICAL SECURITY.—The Under Secretary
17 shall develop technology to reduce the Nation’s vulner-
18 ability to chemical warfare agents and commonly used
19 toxic industrial chemicals, including—

20 (1) developing a robust and enduring analytical
21 capability in support of chemical countermeasures
22 development, including developing and validating fo-
23 rensic methodologies and analytical tools, conducting
24 risk and vulnerability assessments based on chemical

1 threat properties, and maintaining infrastructure in-
2 cluding the Chemical Security Analysis Center;

3 (2) developing technology to detect a chemical
4 threat release; and

5 (3) developing technologies and guidance docu-
6 ments to foster a coordinated approach to returning
7 a chemically contaminated area to a normal condi-
8 tion, and to foster analysis of contaminated areas
9 both before and after the restoration process.

10 **SEC. 410. MARITIME DOMAIN AWARENESS AND MARITIME**
11 **SECURITY TECHNOLOGY TEST, EVALUATION,**
12 **AND TRANSITION CAPABILITIES.**

13 (a) GLOBAL MARITIME DOMAIN AWARENESS AND
14 MARITIME SECURITY TECHNOLOGY TEST, EVALUATION,
15 AND TRANSITION CAPABILITIES.—

16 (1) ESTABLISHMENT.—The Secretary shall es-
17 tablish capabilities for conducting global maritime
18 domain awareness and maritime security technology
19 test, evaluation, and transition, as provided in this
20 subsection.

21 (2) PURPOSE.—The purpose of such capabili-
22 ties shall be to—

23 (A) direct technology test, evaluation, and
24 transition activities in furtherance of border
25 and maritime security; and

1 (B) evaluate such technology in diverse en-
2 vironments including coastal, seaport, and off-
3 shore locations.

4 (b) COORDINATION.—The Secretary, acting through
5 the Under Secretary, shall ensure that—

6 (1) technology test, evaluation, and transition
7 efforts funded by the Department in furtherance of
8 border and maritime security avoid duplication of ef-
9 forts and complement existing Department and
10 other efforts in border and maritime security; and

11 (2) the results of such efforts are shared with
12 the appropriate congressional committees and others
13 as determined appropriate by the Secretary.

14 **SEC. 411. RAPID BIOLOGICAL THREAT DETECTION AND**
15 **IDENTIFICATION.**

16 (a) IN GENERAL.—Notwithstanding section 302(4)
17 of the Homeland Security Act of 2002, the Secretary shall
18 require the Under Secretary, in consultation with other
19 relevant operational components of the Department, to
20 pursue the development of screening capabilities for pan-
21 demic influenza and other infectious diseases to support
22 entry and exit screening at ports of entry and for other
23 purposes.

24 (b) DEVELOPMENT OF METHODS.—Not later than
25 60 days after the date of enactment of this Act, the Sec-

1 retary shall, to the extent possible, initiate development
2 of safe and effective methods to rapidly screen incoming
3 travelers at ports of entry for pandemic influenza and
4 other infectious diseases.

5 (c) COLLABORATION.—In developing methods under
6 subsection (b), the Secretary may collaborate with other
7 Federal agencies, as appropriate.

8 **SEC. 412. EDUCATING THE PUBLIC ABOUT RADIOLOGICAL**
9 **THREATS.**

10 (a) PUBLIC AWARENESS CAMPAIGN.—The Secretary
11 shall develop a public awareness campaign to enhance pre-
12 paredness and collective response to a radiological attack,
13 including the following:

14 (1) A clear explanation of the dangers associ-
15 ated with radioactive materials.

16 (2) Possible effects of different levels of radi-
17 ation exposure, including a clear description of the
18 how radiation exposure occurs and the amount of ex-
19 posure necessary to be of concern.

20 (3) Actions that members of the public should
21 take regarding evacuation, personal decontamina-
22 tion, and medical treatment.

23 (b) RECOVERY.—The Secretary shall develop a plan
24 for post-event recovery from a radiological attack. Such
25 plan shall include the following:

1 (1) A definition of the demarcation between re-
2 sponse and recovery from a radiological attack.

3 (2) Consideration of multiple attack scenarios,
4 including a worst-case scenario.

5 (3) Consideration of multiple recovery strate-
6 gies, including decontamination, demolition and re-
7 moval, and relocation.

8 (4) Consideration of economic, health, and psy-
9 chological effects.

10 **SEC. 413. RURAL RESILIENCE INITIATIVE.**

11 (a) IN GENERAL.—The Under Secretary shall con-
12 duct research intended to assist State, local, and tribal
13 leaders in developing the tools and methods to enhance
14 preparation for, and response and resilience to, terrorist
15 events and other incidents.

16 (b) INCLUDED ACTIVITIES.—Activities under this
17 section shall include—

18 (1) research and implementation through out-
19 reach activities with rural communities;

20 (2) an examination of how communities employ
21 resilience capabilities and response assets;

22 (3) a community resilience baseline template for
23 determining the resilience capacity of a rural com-
24 munity;

1 (4) a plan to address community needs for re-
2 silience;

3 (5) an education program for community lead-
4 ers and first responders about their resilience capac-
5 ity and mechanisms for mitigation, including via dis-
6 tance learning; and

7 (6) a mechanism by which this research can
8 serve as a model for adoption by communities across
9 the Nation.

10 **SEC. 414. SENSE OF CONGRESS REGARDING THE NEED FOR**
11 **INTEROPERABILITY STANDARDS FOR INTER-**
12 **NET PROTOCOL VIDEO SURVEILLANCE TECH-**
13 **NOLOGY.**

14 It is the sense of Congress that—

15 (1) video surveillance systems that operate over
16 the Internet are an emerging homeland security
17 technology that has the potential of significantly im-
18 proving homeland security forensic and analytical
19 capability;

20 (2) to realize the full security benefits of such
21 emerging homeland security technology, there should
22 be interoperability standards for such technology;

23 (3) the Directorate, working with other appro-
24 priate Federal agencies, should encourage the pri-

1 vate sector to develop interoperability standards
 2 such emerging homeland security technology; and
 3 (4) such efforts will help the Federal Govern-
 4 ment, which is one of the largest users of surveil-
 5 lance technology, in detecting, deterring, preventing,
 6 responding to terrorist attacks.

7 **TITLE V—DOMESTIC NUCLEAR** 8 **DETECTION OFFICE**

9 **SEC. 501. AUTHORIZATION OF APPROPRIATIONS.**

10 There is authorized to be appropriated for the Do-
 11 mestic Nuclear Detection Office of the Department—

12 (1) \$305,840,000 for fiscal year 2011; and

13 (2) \$315,005,000 for fiscal year 2012.

14 **SEC. 502. DOMESTIC NUCLEAR DETECTION OFFICE OVER-** 15 **SIGHT.**

16 (a) SENSE OF CONGRESS.—It is the sense of Con-
 17 gress that the Domestic Nuclear Detection Office of the
 18 Department (in this section referred to as the “DNDO”)
 19 should work through the Directorate in conducting basic
 20 and innovative research and non-developmental testing, in
 21 order to advance next generation nuclear detection tech-
 22 nologies.

23 (b) INTERNAL REVIEW OF PROJECT SELECTION AND
 24 EVALUATION METHODOLOGY.—Not later than 90 days
 25 after the date of the enactment of this Act, the Director

1 of the DNDO shall begin an internal review of the method-
2 ology by which research, development, testing, and evalua-
3 tion is identified, prioritized, and funded by the DNDO.
4 In conducting such review, the Director shall consult with
5 the Under Secretary and the heads of all operational com-
6 ponents of the Department that own, operate, or maintain
7 nuclear or radiological detection technologies.

8 (c) CONTENTS OF REVIEW.—In carrying out the re-
9 view required under subsection (b), the Director of the
10 DNDO shall—

11 (1) identify basic and innovative research and
12 any non-developmental testing that should be con-
13 ducted in concert and under agreement with the Di-
14 rectorate;

15 (2) produce a charter delineating roles, respon-
16 sibilities, common definitions, standard operating
17 procedures, and decision rules for research, develop-
18 ment, testing, and evaluation activities;

19 (3) implement a transparent system for track-
20 ing research, development, testing, and evaluation
21 requirements;

22 (4) establish a mechanism to provide regular
23 updates to components of the Department on the
24 progress of such research;

1 (5) establish a mechanism to facilitate training
2 Department components in subjects such as
3 prioritizing homeland security capability gaps and
4 requirements development and analysis;

5 (6) determine whether technical needs of the
6 operational components of the Department and
7 State and local first responders are being adequately
8 addressed by the existing project selection process,
9 and if not, how such process can be improved;

10 (7) establish a method to collect and evaluate
11 Department component feedback;

12 (8) developing matrices for and conducting im-
13 pact evaluations to determine if technologies pro-
14 duced by the Directorate have enhanced the ability
15 of Department components to perform their mis-
16 sions;

17 (9) identify appropriate five-year levels of in-
18 vestment in basic and applied research and develop-
19 ment, in particular among the Department labora-
20 tories, federally funded research and development
21 centers, university-based centers, Department of En-
22 ergy national laboratories, and other Federal labora-
23 tories;

1 (10) projected balance of use of the entities re-
2 ferred to in paragraph (9) among the Directorate
3 and other Department components; and

4 (11) establish a formal merit review process,
5 with external peer review where appropriate.

6 (d) REPORT.—Not later than one year after the com-
7 pletion of the review required under subsection (b), the
8 Director of the DNDO shall submit to the Secretary and
9 the appropriate congressional committees a report con-
10 taining the findings of such review, together with informa-
11 tion on the systems, methods, and mechanisms estab-
12 lished, and recommendations for additional improvements.

13 (e) DIRECTIVE.—Not later than 90 days after receipt
14 of the review under subsection (d), the Secretary shall
15 issue a departmental management directive institutional-
16 izing the processes and procedures of the Department for
17 identifying, prioritizing, and funding research, develop-
18 ment, testing, and evaluation at the DNDO consistent
19 with the analyses and recommendations under section 236
20 of the Homeland Security Act of 2002, as amended by
21 this Act.

22 (f) QUARTERLY UPDATES ON IMPLEMENTATION.—
23 One hundred and twenty days after the date of enactment
24 of this Act, and on a quarterly basis thereafter, the In-
25 specter General of the Department shall submit a quar-

1 terly update to the appropriate congressional committees
2 on the status of implementation of this section and activi-
3 ties in support of such implementation.

4 **SEC. 503. STRATEGIC PLAN AND FUNDING ALLOCATIONS**
5 **FOR GLOBAL ARCHITECTURE.**

6 Not later than 180 days after the date of the enact-
7 ment of this Act, the Secretary shall submit to the appro-
8 priate congressional committees a report containing the
9 following:

10 (1) A strategic plan for a domestic component
11 of the global nuclear detection strategy, with specific
12 focus on establishing time frames and costs for—

13 (A) land border areas between ports of
14 entry;

15 (B) aviation including passenger, cargo,
16 and general aviation;

17 (C) rail transportation modes including
18 passenger and freight trains;

19 (D) small maritime vessels; and

20 (E) any emerging threat vectors identified
21 by the Director of the Domestic Nuclear Detec-
22 tion Office.

23 (2) In consultation with the Secretary of De-
24 fense, the Secretary of Energy, the Secretary of
25 State, the Nuclear Regulatory Commission, and the

1 Attorney General, an analysis of overall budget allo-
2 cations that determines whether Government-wide
3 nuclear detection resources clearly align with identi-
4 fied priorities to maximize results and minimize du-
5 plication of efforts.

6 (3) An assessment of the effectiveness, cost,
7 and feasibility of a maritime radiological and nuclear
8 pilot program, and undertake additional planning to
9 identify future steps, including how and where a
10 broader strategy would be implemented, what tech-
11 nology would be needed, what organizations should
12 be involved, and how such efforts would be sus-
13 tained.

14 **SEC. 504. RADIATION PORTAL MONITOR ALTERNATIVES.**

15 (a) SENSE OF CONGRESS.—It is the sense of Con-
16 gress that in view of the Secretary’s decision not to certify
17 advanced spectroscopic portal monitors for primary
18 screening applications because they do not offer a signifi-
19 cant increase in operational effectiveness over existing
20 technology, the Director must attempt to identify viable
21 alternatives.

22 (b) IN GENERAL.—The Director of the Domestic Nu-
23 clear Detection Office shall analyze and report to the ap-
24 propriate congressional committees by not later than 90
25 days after the date of enactment of this Act on both exist-

1 ing and developmental alternatives to existing radiation
2 portal monitors and advanced spectroscopic portal mon-
3 itors that would provide the Department with a significant
4 increase in operational effectiveness for primary screening
5 for radioactive materials.

6 **SEC. 505. AUTHORIZATION OF SECURING THE CITIES INI-**
7 **TIATIVE.**

8 (a) FINDINGS.—Congress finds the following:

9 (1) The Securing the Cities Initiative of the De-
10 partment uses next generation radiation detection
11 technology to detect the transport of nuclear and ra-
12 diological material in urban areas by terrorists or
13 other unauthorized individuals.

14 (2) The technology used by partners in the Se-
15 curing the Cities Initiative leverages radiation detec-
16 tion technology used at ports of entry.

17 (3) The Securing the Cities Initiative has fos-
18 tered unprecedented collaboration and coordination
19 among its Federal, State, and local partners.

20 (4) The Securing the Cities Initiative is a crit-
21 ical national capability to detect the dangerous intro-
22 duction of nuclear and radiological material.

23 (b) AUTHORIZATION OF APPROPRIATIONS.—Of
24 amounts authorized by section 501, there is authorized to
25 be appropriated to the Director of the Domestic Nuclear

1 Detection Office of the Department for the Securing the
 2 Cities Initiative such sums as may be necessary for each
 3 of fiscal years 2011 and 2012, including—

4 (1) for each city in which it has been imple-
 5 mented by fiscal year 2009—

6 (A) \$20,000,000 for fiscal year 2011; and

7 (B) \$10,000,000 for fiscal year 2012; and

8 (2) for additional Securing the Cities initiatives
 9 to be implemented in not fewer than 2 sites partici-
 10 pating in the Urban Area Security Initiative, such
 11 sums as may be necessary each fiscal year to imple-
 12 ment and sustain each additional initiative.

13 **TITLE VI—CLARIFYING** 14 **AMENDMENTS**

15 **SEC. 601. FEDERALLY FUNDED RESEARCH AND DEVELOP-** 16 **MENT CENTERS.**

17 Section 305 (6 U.S.C. 184) is amended—

18 (1) by inserting “(a) ESTABLISHMENT.—” be-
 19 fore the first sentence; and

20 (2) by adding at the end the following new sub-
 21 sections:

22 “(b) CONGRESSIONAL TASKING.—Upon a request of
 23 the chairman and the ranking minority member of an ap-
 24 propriate congressional committee, a federally funded re-
 25 search and development center established under this sec-

1 tion is encouraged to perform independent analysis of
2 homeland security issues and report its findings to the ap-
3 propriate congressional committees and the Secretary.

4 “(c) CONGRESSIONAL OVERSIGHT.—Federally fund-
5 ed research and development centers established under
6 this section are encouraged, upon request of the chairman
7 and the ranking minority member of an appropriate con-
8 gressional committee, to provide to the committee a copy
9 of any report it produces for the Department or any of
10 its components.

11 “(d) CONFLICTS OF INTEREST.—The Secretary shall
12 review and revise, as appropriate, the policies of the De-
13 partment relating to personnel conflicts of interest to en-
14 sure that such policies specifically address employees of
15 federally funded research and development centers estab-
16 lished under this section who are in a position to make
17 or materially influence research findings or agency deci-
18 sionmaking.

19 “(e) ANNUAL REPORTS.—Each federally funded re-
20 search and development center established under this sec-
21 tion shall transmit to the Secretary and appropriate con-
22 gressional committees an annual report on the activities
23 of the center.”.

1 **SEC. 602. ELIMINATION OF HOMELAND SECURITY INSTI-**
2 **TUTE.**

3 (a) REPEAL.—Section 312 (6 U.S.C. 192) is re-
4 pealed.

5 (b) CLERICAL AMENDMENT.—The table of contents
6 in section 1(b) is amended by striking the item relating
7 to such section.

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